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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,535	11/05/2003	Franz-Erich Baumann	238157US0	6021

22850 7590 08/07/2006

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ALEXANDRIA, VA 22314

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,535

Applicant(s)

BAUMANN ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The amendment of 5/17/06 has been entered. Claims 1-2 and 4-17 are pending.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 and 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6207768 Sato et al. in view of US Pat. No. 2811499 Hervey, US Pat. Publication No. 2004/0009340 Zhu et al., and US Pat. No. 6110411 Clausen et al., US Pat. No. 6855759 Kudo et al., and with US Pat. No. 6521290 Kudo et al. cited as defining “ AEROSIL R972”.

Sato discloses powder coatings which may contain polyamides (column 4, lines 29, 38, and 66; column 5, lines 25-26 and 45-47; column 13, line 42; column 19, lines 50-52; column 20, lines 5-6) and which contains AEROSIL R972 as a flow control agent. Kudo defines AEROSIL R972 at column 11, lines 9-12 as being fumed silica, which is indicative of nanometer size particles, as is column 7, lines 14-16. and being treated with a hydrophobicizer. Furthermore, the applicant uses the same silica as their hydrophobicized silica. The prior art AEROSIL R972 is therefore expected to fall within the scope of the instant claims 1, 5, 6, 7, 8, 9, and 10. The examples of Sato all use 0.3 phr of the silica as a flow control agent based on the fact that the silica is added to already formed powder (column 19, lines 62-67; column 20, lines 13-20). Sato

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also states “a method by adjusting the amounts of such agents as silica, alumina, titania, and zirconia, the agents being added to adjust flowability” at column 11, lines 11-14. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed amounts of AEROSIL R 972 in the compositions of Sato as the flow control agent because the exemplified amounts of AEROSIL R972 of Sato are very close to the upper limit of the instant claims, Sato states that this amount may be adjusted, going from 0.3% to 0.25% would not be expected to make a large difference in flowability, and Hervey, column 2, lines 57-59, Zhu, section [0050]; and Clausen, column 7, lines 48-52 each show the instantly claimed amounts of silica flow control agents to be typical in the art and these amounts of the AEROSIL R972 of Sato would have been expected to give their usual flow controlling amounts to the particles of Sato’s powder coatings.

The disclosed silica is expected to possess the instantly claimed drying loss and other properties of the instant claims related to the flow aid since it is the flow aid of the instant claims and the applicant’s examples. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the coating methods of the instant claims 11-14 to coat the articles because Zhu shows such polyamide powders to be well known coating agents as does Sato and these are typical methods of applying powder coatings as admitted at page 2 of the instant specification. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the method of the instant claim 15 and the flow control agent of Sato to make the molded articles of Hervey because Hervey discloses sintering and laser sintering, which is well known as taught by Clausen, would have been expected to contribute its known properties to the article of Hervey and Kudo (abstract, column 5, line 18-column 6, line 10,

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particularly column 5, lines 64-67 and column 6, lines 1-10 shows why it is desirable to not have free OH groups in the silicas used in such processes, the hydrophobized silicas of Sato would have been expected to give its known flow control to the particles of Hervey and the resultant molded articles would be free of the defects taught by Kudo to be do to OH groups on the silicas used in the polymer matrices.

5. Claims 1-2 and 4-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 6110411 Clausen et al. with US Pat. No. 5424161 Hayashi et al. and US Pat. No. 6379856 Sokol et al. each cited as evidence.

Clausen et al. discloses polyamide particles coated with fumed silica flow aid in the instantly claimed amounts and particle sizes and the laser sintering thereof. See the abstract; column 1, lines 3-67; column 2, lines 1-67; column 3, lines 1-67, particularly 39-52; column 5, lines 1-67, particularly 45-55; column 6, lines 1-67, particularly 1-9; column 7, lines 1-67, particularly 28-57; column 10, lines 39-67; claims 1-15; and the remainder of the document. The disclosed silica is expected to possess the instantly claimed drying loss and other properties of the instant claims related to the flow aid since it is the flow aid of the instant claims.

The examples use Cab-o-sil "PS" 530. The examiner finds no definition of this silica, even at the Cabot website. The examiner finds numerous recitations to Cab-o-sil TS 530. Considering the typical difficulties in transmitting letters which sound alike over e.g. the phone, it would not be unexpected that a typist would transpose a T with a P. Thus, the examples of Clausen might contain a typo. The burden is on the applicant to show that the Cab-o-sil PS 530 is not inherently hydrophobicized because the fumed silicas used to give flow control typically seem to be hydrophobicized as evidenced by Hyashi et al., column 9, line 25 to column 10, line 5 and Sokol,

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which shows that Cab-o-sil TS 530 is a fumed silica at column 10, lines 29-30. It also appears that the Cab-o-sil PS 530 of Clausen might really be a typo and that Cab-o-sil TS 530 was intended because the PTO cannot find a definition of the PS 530 product, even at the Cabot website, but finds numerous recitations of the TS 530 product.

6. Claims 1-2 and 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6110411 Clausen et al. in view of US Pat. No. 6855759 Kudo et al., US Pat. No. 5898043 Uemae et al., and US Pat. No. 6207768 Sato et al.

Clausen et al. discloses polyamide particles coated with fumed silica flow aid in the instantly claimed amounts and particle sizes and the laser sintering thereof. See the abstract; column 1, lines 3-67; column 2, lines 1-67; column 3, lines 1-67, particularly 39-52; column 5, lines 1-67, particularly 45-55; column 6, lines 1-67, particularly 1-9; column 7, lines 1-67, particularly 28-57; column 10, lines 39-67; claims 1-15; and the remainder of the document. The disclosed silica is expected to possess the instantly claimed drying loss and other properties of the instant claims related to the flow aid since it is the flow aid of the instant claims.

It would have been obvious to one of ordinary skill in the art to use the instantly claimed hydrophobicized silicas as the fumed silica of Clausen because the fumed silicas typically used in the art as flow control agents are often hydrophobicized as taught by Sato's exemplified use of AEROSIL R972 as their flow control agent, Uemae's use of hydrophobic silica as their flow control agent (column 10, lines 20-25 and column 18, lines 48-54) and Kudo shows why the silica in such compositions should be hydrophobicized to avoid the silanol groups and using such hydrophobicized silicas as the flow agent in the prior art would have been expected to avoid the problems described by Kudo at column 5, line 18 to column 6, line 10.

7. Claims 1-2, 4-10, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5898043 Uemae et al..

Uemae discloses using hydrophobic silicas as their flow control agent in powdered coatings including those containing polyamides. They use the silica of the applicant's examples, e.g. AEROSIL R972 which must possess the instantly claimed silica parameters. See the abstract; column 3, lines 29-34; column 5, line 11; column 9, lines 57-60; column 10, lines 20-28; column 18, lines 48-54; and the remainder of the document.

8. Claims 1-2 and 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5898043 Uemae et al. in view of US Pat. No. 2811499 Hervey, US Pat. Publication No. 2004/0009340 Zhu et al., and US Pat. No. 6110411 Clausen et al., US Pat. No. 6855759 Kudo et al., and with US Pat. No. 6521290 Kudo et al. cited as defining " AEROSIL R972".

Uemae discloses using hydrophobic silicas as their flow control agent in powdered coatings including those containing polyamides. They use the silica of the applicant's examples, e.g. AEROSIL R972 which must possess the instantly claimed silica parameters. See the abstract; column 3, lines 29-34; column 5, line 11; column 9, lines 57-60; column 10, lines 20-28; column 18, lines 48-54; and the remainder of the document.

The disclosed silica is expected to possess the instantly claimed drying loss and other properties of the instant claims related to the flow aid since it is the flow aid of the instant claims and the applicant's examples. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the coating methods of the instant claims 11-14 to coat the articles to be coated by Uemae because Zhu shows such polyamide powders to be well known coating agents as does Uemae and these are typical methods of applying powder coatings as

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admitted at page 2 of the instant specification. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the method of the instant claim 15 and the flow control agent of Uemae to make the molded articles of Hervey because Hervey discloses sintering and laser sintering, which is well known as taught by Clausen, would have been expected to contribute its known properties to the article of Hervey and Kudo (abstract, column 5, line 18-column 6, line 10, particularly column 5, lines 64-67 and column 6, lines 1-10 shows why it is desirable to not have free OH groups in the silicas used in such processes, the hydrophobized silicas of Uemae would have been expected to give its known flow control to the particles of Hervey and the resultant molded articles would be free of the defects taught by Kudo to be do to OH groups on the silicas used in the polymer matrices.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

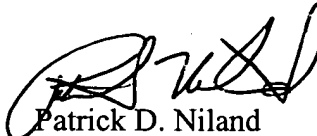
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'P. Niland', is positioned above the printed name.

Patrick D. Niland
Primary Examiner
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